WHAT IS CLAIMED IS:

1. An information processing apparatus comprising:

a class classifier for classifying an aimed-at data item into one of a plurality of classes specified in advance, according to a plurality of data items disposed around the aimed-at data item;

a memory for storing conversion information for the aimed-at data item for each class; and

a converter for converting the aimed-at data item to a data item having a higher quality, according to the conversion information,

wherein the class classifier classifies the aimed-at data item into a different class according to whether the aimed-at data item is missing.

2. An information processing apparatus according to Claim 1, wherein the conversion information is information used for generating the aimed-at data item according to the plurality of data items disposed around the aimed-at data item, for a missing class in which the aimed-at data item is missing, and the conversion information is information used for converting the aimed-at data item to a data item having a higher quality, for a non-missing class in which the aimed-at data item is not missing.

3. An information processing apparatus according to Claim 2, wherein the conversion information is information used for converting the aimed-at data item to a data item having reduced noise, for the non-missing class.

4. An information processing apparatus according to Claim 1, wherein the conversion information is information obtained by learning achieved in advance.

5. An information processing apparatus according to Claim 1, wherein the conversion information is prediction coefficients used for a linear or non-linear, or a first-order or high-order estimation equation.

6. An information processing apparatus according to Claim 1, wherein the class classifier classifies the aimed-at data item into one of the plurality of classes specified in advance, according to a class tap which includes the plurality of data items disposed around the aimed-at data item.

7. An information processing apparatus according to Claim 1, wherein the converter converts the aimed-at data item to a data item having a higher quality, according to a

prediction tap corresponding to the class into which the aimed-at data item has been classified.

8. An information processing apparatus according to Claim 1, wherein the class classifier classifies the aimed-at data item into one of the plurality of classes specified in advance, according to a plurality of data items disposed spatially around the aimed-at data item.

9. An information processing apparatus according to Claim 1, wherein the class classifier classifies the aimed-at data item into one of the plurality of classes specified in advance, according to a plurality of data items disposed along the time axis around the aimed-at data item.

10. An information processing apparatus according to Claim 1, wherein the aimed-at data item is image data.

11. An information processing method comprising the steps of:

classifying an aimed-at data item into one of a plurality of classes specified in advance, according to a plurality of data items disposed around the aimed-at data item;

selecting conversion information corresponding to the

class into which the aimed-at data item has been classified; and

converting the aimed-at data item to a data item having a higher quality, according to the conversion information,

wherein the aimed-at data item is classified into a different class according to whether the aimed-at data item is missing, in the step of classifying the aimed-at data item.

12. An information processing method according to Claim 11, wherein the conversion information is information used for generating the aimed-at data item according to the plurality of data items disposed around the aimed-at data item, for a missing class in which the aimed-at data item is missing, and the conversion information is information used for converting the aimed-at data item to a data item having a higher quality, for a non-missing class in which the aimed-at data item is not missing.

13. An information processing method according to Claim 12, wherein the conversion information is information used for converting the aimed-at data item to a data item having reduced noise, for the non-missing class.

14. An information processing method according to

Claim 11, wherein the conversion information is information obtained by learning achieved in advance.

15. An information processing method according to Claim 11, wherein the conversion information is prediction coefficients used for a linear or non-linear, or a first-order or high-order estimation equation.

16. An information processing method according to Claim 11, wherein the aimed-at data item is classified into one of the plurality of classes specified in advance, according to a class tap which includes the plurality of data items disposed around the aimed-at data item, in the step of classifying the aimed-at data item.

17. An information processing method according to Claim 11, wherein the aimed-at data item is converted to a data item having a higher quality in the step of converting the aimed-at data item, according to a prediction tap corresponding to the class into which the aimed-at data item has been classified.

18. An information processing method according to Claim 11, wherein the aimed-at data item is classified into one of the plurality of classes specified in advance in the

step of classifying the aimed-at data item, according to a plurality of data items disposed spatially around the aimed-at data item.

19. An information processing method according to Claim 11, wherein the aimed-at data item is classified into one of the plurality of classes specified in advance in the step of classifying the aimed-at data item, according to a plurality of data items disposed along the time axis around the aimed-at data item.

20. An information processing method according to Claim 11, wherein the aimed-at data item is image data.

21. A recording medium storing a computer-readable program, the program comprising the steps of:

classifying an aimed-at data item into one of a plurality of classes specified in advance, according to a plurality of data items disposed around the aimed-at data item;

selecting conversion information corresponding to the class into which the aimed-at data item has been classified; and

converting the aimed-at data item to a data item having a higher quality, according to the conversion information,

wherein the aimed-at data item is classified into a different class according to whether the aimed-at data item is missing, in the step of classifying the aimed-at data item.

22. A learning apparatus comprising:

a class classifier for classifying an aimed-at data item into one of a plurality of classes specified in advance, according to a plurality of data items disposed around the aimed-at data item; and

a conversion-information generator for generating conversion information used for converting the aimed-at data item to a data item having a higher quality, for the class,

wherein the class classifier classifies the aimed-at data item into a different class according to whether the aimed-at data item is missing.

23. A learning method comprising the steps of:

classifying an aimed-at data item into one of a plurality of classes specified in advance, according to a plurality of data items disposed around the aimed-at data item; and

generating conversion information used for converting the aimed-at data item to a data item having a higher quality, for the class,

wherein the aimed-at data item is classified into a different class in the step of classifying the aimed-at data item, according to whether the aimed-at data item is missing.